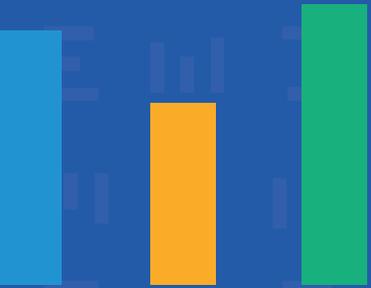


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# UNDERSTANDING *our* VISITORS

Multi-Institutional Museum Study

JULY 2018–JUNE 2019



COVES was established as a grant-funded project in October 2014 through the generous support of the Institute of Museum and Library Services. The project became an independent, membership-supported entity in October 2018. As of October 2019, the collaboration will include 29 science centers and museums in the United States and Canada.

Copyright 2019 Collaboration for  
Ongoing Visitor Experience Studies

Report designed by  **COLORBOX**  
INDUSTRIES

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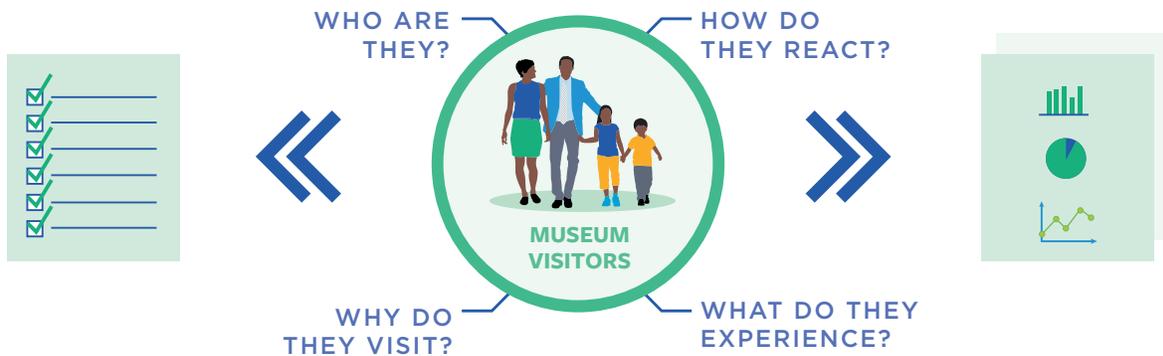




## WHAT IS COVES?

The Collaboration for Ongoing Visitor Experience Studies (COVES) is designed to unite museums and science centers to systematically collect, analyze, and report on visitor experience data. We envision a collaborative museum community seeking to better understand and improve the visitor experience.

We believe that studying the visitor experience in museums and science centers—who visits a particular museum, why they visit, what they experience during their visit, and how they react to different aspects of their experience—can help organizations learn about their visitors, make evidence-based decisions about services and programming, and respond to challenges, interests, and concerns in a visitor-centered manner. Every year, we present findings from aggregate data from all of our museum participants to provide insight into museum and science center visitors. This report contains data collected between July 2018 and June 2019 from our cohort of science centers, natural history museums, and children’s museums spanning the United States and Canada.



Participating institutions can make evidence-based decisions.

**COVES collects, analyzes, and reports data about museum visitors.**

Aggregate data (shown in this report) can inform the museum field as a whole.

# JULY 2018 – JUNE 2019

## PARTICIPANTS

Data from the following 21 institutions are included in this report.

### LARGE INSTITUTIONS

- COSI** | Columbus, OH
- Exploratorium** | San Francisco, CA
- The Franklin Institute** | Philadelphia, PA
- Museum of Science** | Boston, MA
- Oregon Museum of Science and Industry** | Portland, OR
- Saint Louis Science Center** | St. Louis, MO
- Science Museum of Minnesota** | St. Paul, MN
- Science World British Columbia** | Vancouver, BC Canada

### MEDIUM INSTITUTIONS

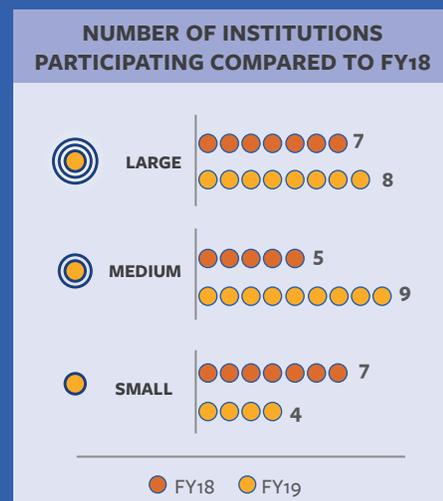
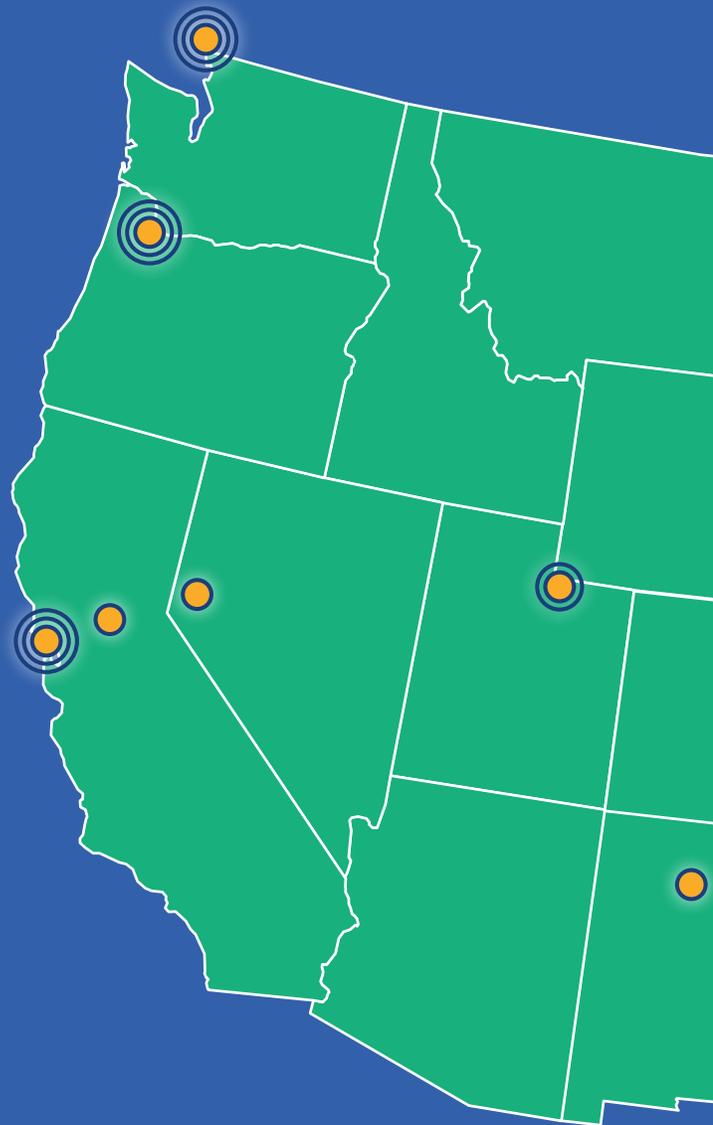
- Discovery World** | Milwaukee, WI
- The DoSeum** | San Antonio, TX
- EcoTarium** | Worcester, MA
- Great Lakes Science Center** | Cleveland, OH
- Imagination Station** | Toledo, OH
- Museum of Discovery and Science** | Ft. Lauderdale, FL
- Natural History Museum of Utah** | Salt Lake City, UT
- New York Hall of Science** | New York, NY
- Orlando Science Center** | Orlando, FL

### SMALL INSTITUTIONS

- Bradbury Science Museum** | Los Alamos, NM
- Discovery Center Museum** | Rockford, IL
- Roseville Utility Exploration Center** | Roseville, CA
- Terry Lee Wells Nevada Discovery Museum** | Reno, NV

COVES uses several institutional factors, including operating budget and annual visitation, to define size categories. These categories guide the sample size targets that COVES provides to each institution.

The distribution of institutional size in our FY19 cohort has changed since last year, with representation from more medium and large museums and fewer small museums.





This report includes visitor data from 21 institutions

# DATA COLLECTION METHODS

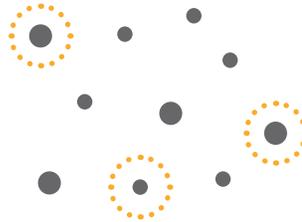
All COVES institutions collect data using an onsite, electronic exit survey. Data collectors approach general public visitor groups at the museum exit(s) and ask them to designate one adult as the survey-taker. The individual then completes the survey onsite at the end of their group's time in the museum. The COVES survey is currently available in English and Spanish. COVES used part of its first year (October 2015–March 2016) as a pilot period to select a standardized data collection method; more information about the pilot study and findings can be found on our website ([www.understandingvisitors.org/about/resources/](http://www.understandingvisitors.org/about/resources/)).

## KEY ASPECTS OF THE DATA COLLECTION PROTOCOL



### ONSITE SURVEY

Respondents take the survey using an electronic tablet.



### SYSTEMATIC RANDOM SAMPLING

Using a sampling protocol, data collectors select a random sample of groups exiting the museum to invite them to take the survey.



### GENERAL PUBLIC ONLY

No school, camp, or tour groups are included in the sample.



### ONGOING

Data are collected during every month of the year, on weekdays and weekends.

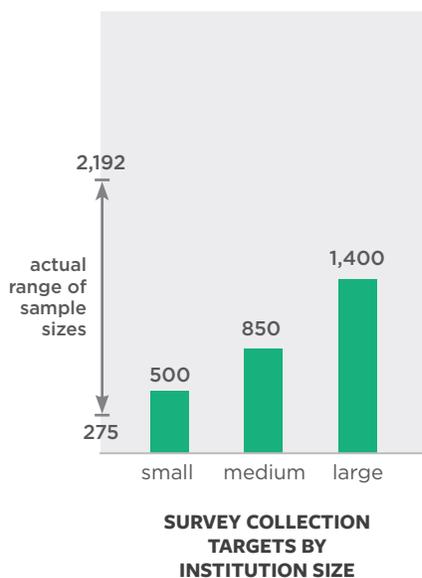
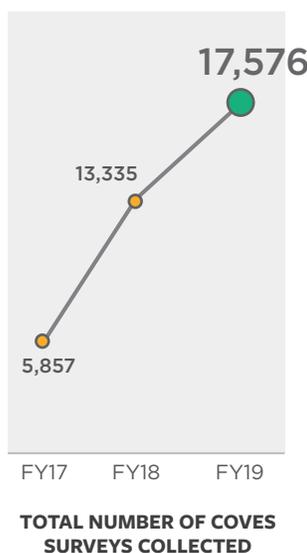
# SAMPLE INFORMATION

The COVES reporting cycle follows a July to June Fiscal Year (FY) structure. This report includes data from FY19, or July 2018 to June 2019. In FY19, COVES sites collected 17,576 surveys.

The COVES Research Team sets yearly sample size targets for small (about 500 responses), medium (about 850 responses), and large institutions (about 1,400 responses). The Research Team then uses general public attendance data from participants to establish proportional sampling by month. For example, most participants collect the highest number of surveys in July when many museums and science centers get the highest number of visitors and the lowest number in September when visitation tends to drop.

In FY19, actual institutional sample sizes ranged from 275 to 2,192. Differences between target and completed survey sample sizes are largely due to several institutions joining partway through the year and variability in achieving data collection targets. To be included in this report, institutions needed to have a COVES start date no later than January 1, 2019 and to have collected at least 200 responses. To account for the differences in sample sizes across institutions and avoid over-representing large institutions, statistical weights were applied to the data prior to analysis.

## ABOUT THE SURVEYS



## WHY ARE THE DATA INTERESTING?

These data represent a collaborative, ongoing, multi-institutional visitor study. Because the data were collected using a common method and survey instrument, they can be combined—or aggregated—together. The resulting aggregate data can help us learn more about visitors, not just at one institution, but across many different institutions. While individual science centers and museums may collect visitor experience data, this collaboration is the first of its kind to use shared measures and provide relevant points of comparison for all participants.

The data presented in this report do not necessarily typify any particular institution, but instead represent the collaboration as a whole. Aggregating data in this way may obscure differences between individual institutions, but can provide insight into broad trends in museum and science center visitors. Although this group is not perfectly representative of the museum and science center field as a whole, the institutions included here are diverse in size and location within North America.

In the sections that follow, pages 12–15 provide a comprehensive overview of the data, while pages 16–21 dig into comparisons between different sub-groups. Our analyses are exploratory, and they are more suggestive of trends to be aware of rather than declarative in nature. Therefore, the comparisons presented are descriptive and do not indicate statistical findings from inferential analyses, as there is considerable context at each site that complicates the use of significance testing.

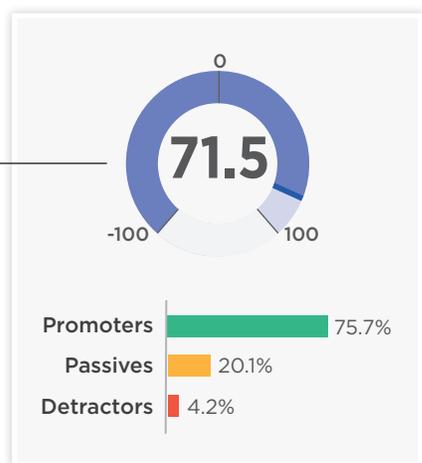
### AS YOU REVIEW THESE DATA, CONSIDER THE FOLLOWING QUESTIONS

- Are any of these findings surprising?
- Do any of these findings confirm your assumptions or expectations?
- If you work at a museum that is not part of COVES, how do you think your institution's data would compare to the aggregate data in this report?
- What do these data suggest about trends among museum and science center visitors?
- What types of actions might we take as a field based on these data?
- What further questions arise after seeing these data?
- What information about fieldwide trends can we see when comparing to last year?

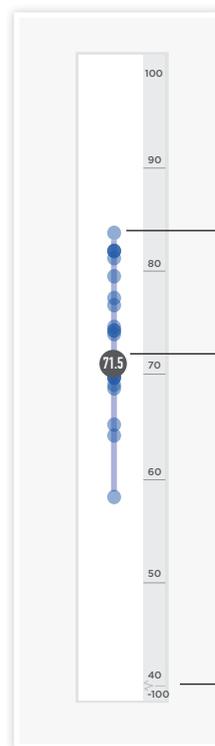
# HOW TO READ AND INTERPRET THE GRAPHS IN THIS REPORT

## NET PROMOTER SCORE (NPS)

“On a scale from 0 to 10, how likely are you to recommend [Institution Name] to a friend or colleague?”



Net Promoter Score is calculated by subtracting the percentage of “Detractors” (ratings of 0-6) from the percentage of “Promoters” (ratings of 9-10). In this example,  $75.7\% - 4.2\% = 71.5\%$ . The net score has a possible range of -100 to 100.



Net Promoter Scores from different institutions are presented on pages 16–20 on these vertical scales. Each dot represents an individual institution’s NPS.

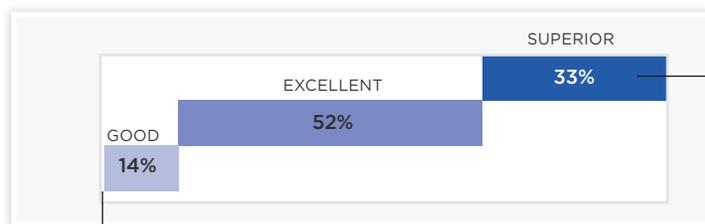
This dark gray circle represents the aggregate NPS for all institutions.

The NPS scale goes from -100 to 100, but we are representing a truncated version. The scale on each page is the same so they can be compared.

## OVERALL EXPERIENCE RATING (OER)

“Please rate your overall experience at [Institution Name] today.”

Options are: poor, fair, good, excellent, and superior



Each colored bar represents the percentage of visitors across institutions who selected that rating (i.e., “Superior”).

“Fair” and “Poor” are additional response options on the OER scale, but are not displayed because they typically represent less than 2% combined.

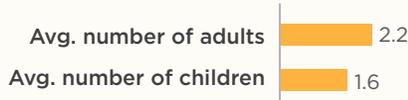
## GROUP DEMOGRAPHICS

The COVES protocol involves selecting one adult from a visitor group to be the primary respondent, but the survey asks for some information that describes the entire visiting group. This information is summarized below.



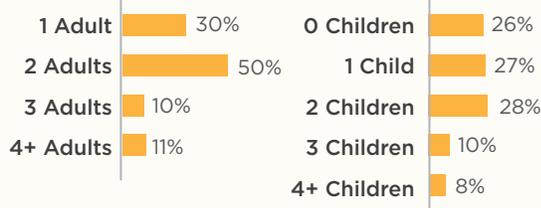
### AVERAGE GROUP SIZE

n=14,531 (adults), n=14,280 (children)



### GROUP COMPOSITION

n=14,531 (adults), n=14,280 (children)



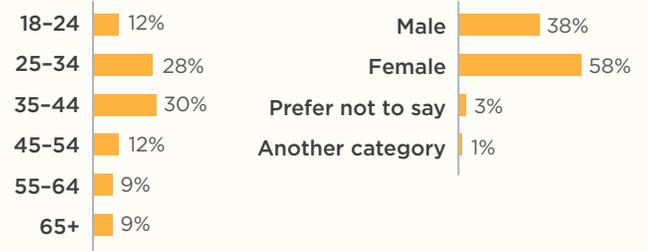
### CHILD AGE AND GENDER BREAKDOWNS

n=16,281 (age) / n=14,797 (gender)



### ADULT AGE AND GENDER BREAKDOWNS

n=21,439 (age) / n=23,931 (gender)



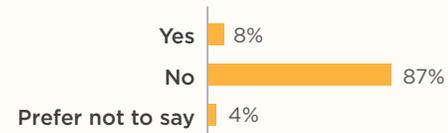
### RESIDENCE OF GROUP MEMBERS

n=14,054



### DOES ANYONE IN YOUR GROUP HAVE A PERMANENT OR TEMPORARY DISABILITY?

n=14,517



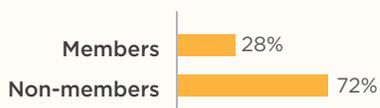
# INDIVIDUAL RESPONDENT DEMOGRAPHICS

The survey also asks for some information from the primary respondent only. This information is summarized below.



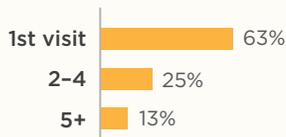
## MEMBERSHIP

n=12,061



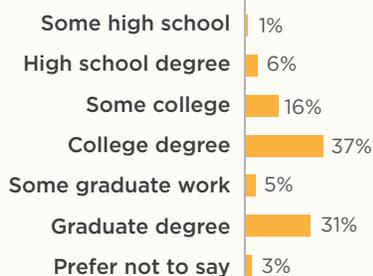
## NUMBER OF VISITS IN THE LAST YEAR

n=13,004



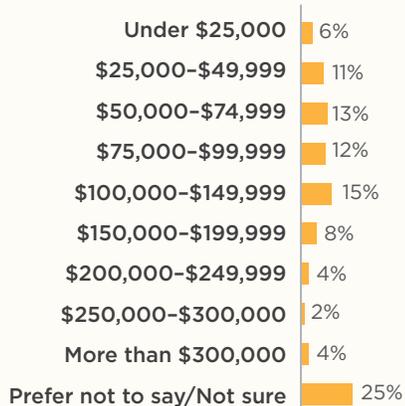
## EDUCATION

n=14,725



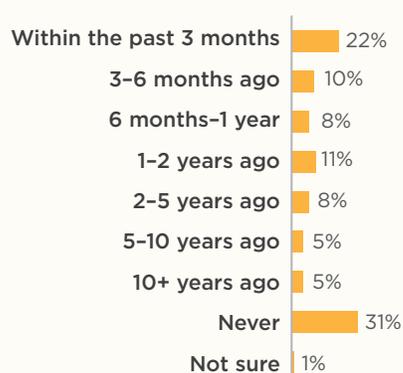
## HOUSEHOLD INCOME

n=14,431



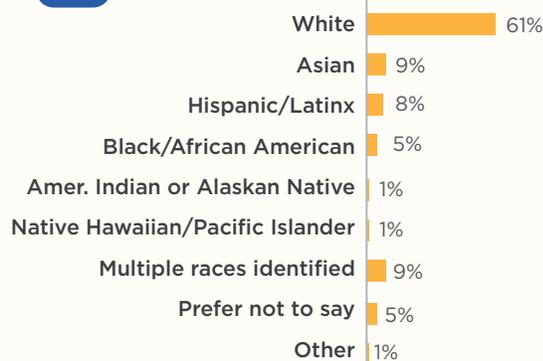
## DATE OF LAST VISIT

n=14,640



## RACE/ETHNICITY

n=14,237



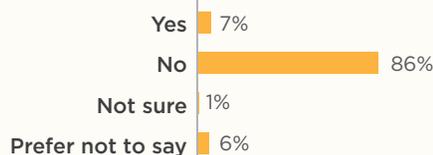
## US RESIDENCE

n=13,998



## LGBT+ IDENTIFICATION

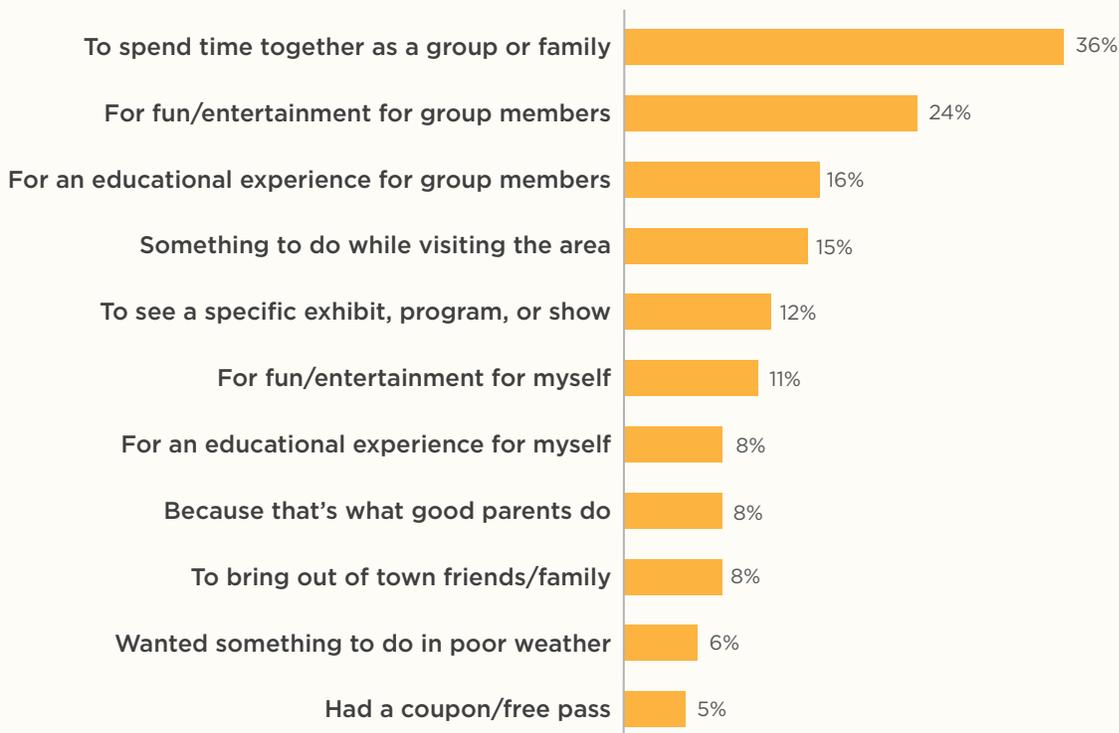
n=13,675



## MOTIVATIONS

n=15,040

Visitors may have several reasons for deciding to come to a science center or museum. In the COVES survey, they select the two most important reasons for visiting from the list below, which displays in a random order.



## LENGTH OF STAY

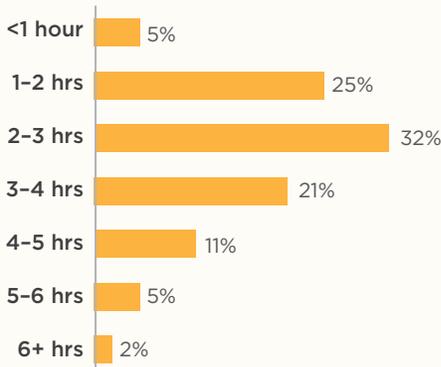
The COVES survey asks visitors what time they arrived at the museum, and we are then able to calculate their length of stay using the exit survey's time stamp.

### MEDIAN STAY TIME

n=13,281



Median stay time was  
2 hours, 37 minutes

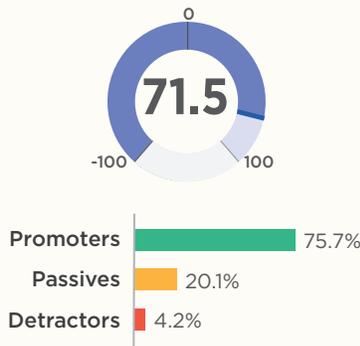


## NET PROMOTER SCORE & EXPERIENCE RATINGS

Two commonly-used metrics in museums are Net Promoter Score and Overall Experience Rating. Overall Experience Rating is a direct experience rating, while Net Promoter Score asks how likely the respondent is to recommend the institution. The COVES survey also asks respondents to rate their agreement with eight statements about specific aspects of the visit.

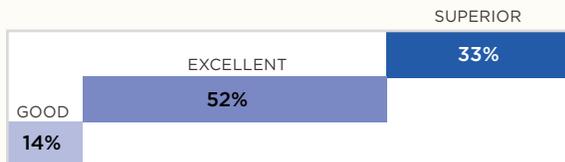
### NET PROMOTER SCORE

n=14,964



### OVERALL EXPERIENCE RATING (OER)

n=14,821

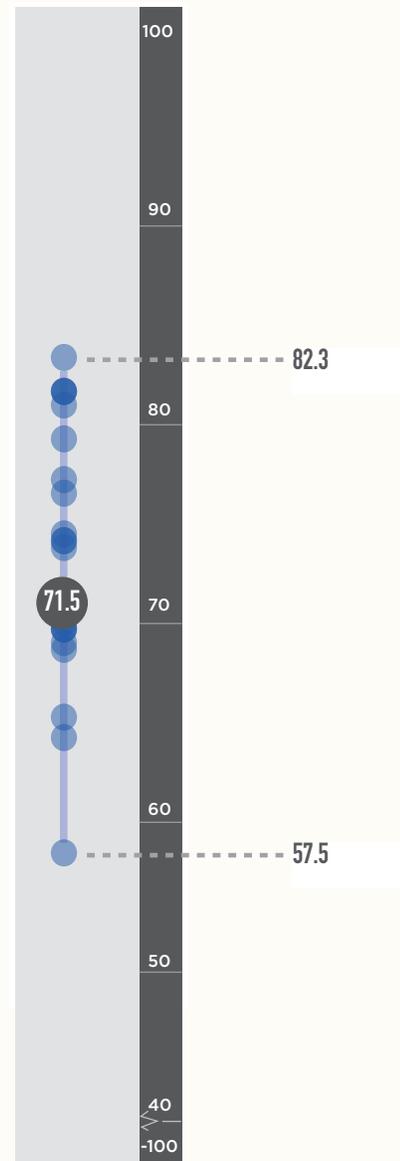


### EXPERIENCE RATINGS

Average rating, scale from 0 to 10 where 10 is highest n varies



### NET PROMOTER SCORE RANGE ACROSS INSTITUTIONS



## MEMBERS (28%) VS. NON-MEMBERS (72%)

Members are a key audience for museums. Last year’s aggregate report showed that members tend to give higher experience ratings than non-members, and they also visit more often. Below we highlight some of the demographic differences between members and non-members. Several demographic factors tend to overlap with membership, such as likelihood to visit with children, specifically young children. Members also tend to have higher household income, higher levels of educational attainment, and are less racially diverse than non-members. Two institutions do not have membership programs and thus are not included in this analysis.

**WHY IT MATTERS:** Members comprise between 12% and 53% of visitors to COVES museums with membership programs. While members are and will continue to be a valuable visitor group, how can museums think about attracting a more diverse membership base? As many museums undertake diversity, equity, access, and inclusion initiatives, how do these initiatives address membership?

### RACE/ETHNICITY—WHITE-ONLY

n=3,408 / n=8,861



### HOUSEHOLD INCOME—OVER \$100K

n=3,507 / n=8,853



### GROUP TYPE—ADULT-ONLY

n=3,547 / n=8,803



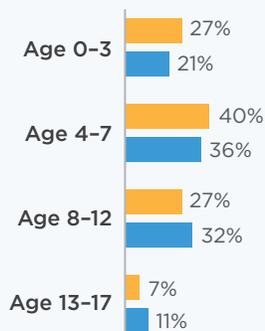
### EDUCATION—GRADUATE DEGREE

n=3,556 / n=9,047



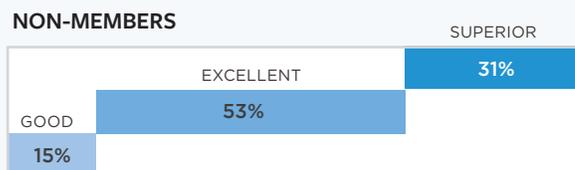
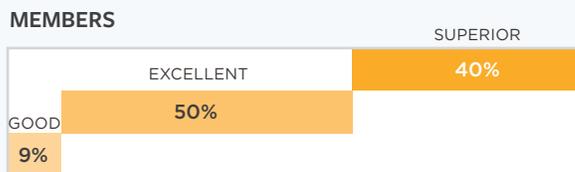
### CHILD AGE

n=5,366 / n=8,849



### OVERALL EXPERIENCE RATING

n=3,578 / n=9,116



**GROUPS WITH CHILDREN 7 AND UNDER (52%)**

**VS. GROUPS WITH MIXED CHILD AGES (23%)**

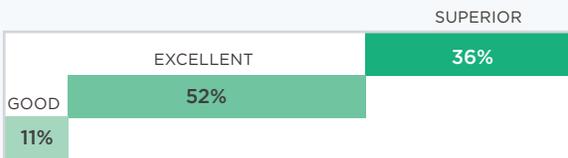
**VS. GROUPS WITH CHILDREN 8 AND OVER (25%)**

Though many museums and science centers are expanding programming for their adult audiences, families with children continue to be a core public audience. In the COVES cohort, these children tend to be age 7 and under. The groups bringing these children are more likely to be museum members and locals. While they don't spend as much time at the museum, they tend to give higher ratings for things like entertainment experience and the value for the cost.

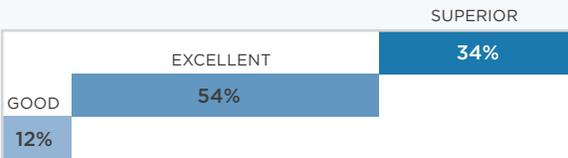
**WHY IT MATTERS:** While over half of groups with children visit exclusively with younger children, nearly a quarter have both younger and older children. Different ages benefit from different types of museum experiences. How can museums create experiences that engage all group members, including younger children, older children, and adults?

**OVERALL EXPERIENCE RATING**

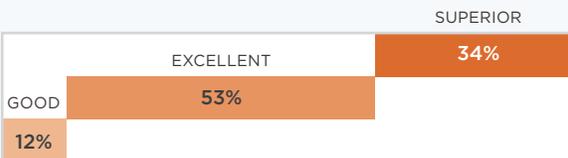
GROUPS WITH CHILDREN 7 AND UNDER | n=4,284



GROUPS WITH MIXED CHILD AGES | n=1,936



GROUPS WITH CHILDREN 8 AND OVER | n=2,041



**LOCALS-ONLY**

n=4,134 / n=1,884 / n=1,965



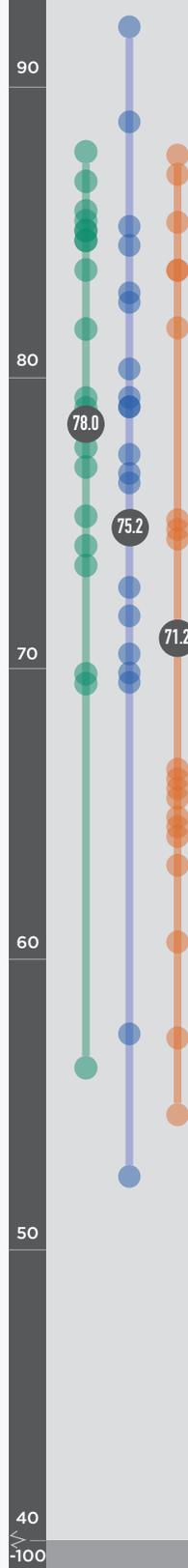
**MEDIAN STAY TIME**

n=3,589 / n=1,657 / n=1,934



**MEMBERSHIP**

n=3,507 / n=1,554 / n=1,752



## TEMPORARY EXHIBIT VISITORS (56%)

## VS. TEMPORARY EXHIBIT NON-VISITORS (44%)

In this analysis, we compiled every COVES institution that had hosted at least one temporary or traveling exhibition. We then compared visitors who went to one of these exhibitions to visitors who could have visited, but did not (i.e., they visited the museum while a temporary exhibition was available, but did not go to the exhibition). These exhibitions varied: some were up-charged, some were geared toward young children, and some appeared at multiple COVES institutions.

As might be expected, temporary exhibit visitors are more likely to be motivated to visit to see a specific exhibit, program, or show. They also tend to stay at the museum longer and are more likely to rate their museum experience as “Superior.” Temporary exhibit visitors give lower ratings to the value for the cost of their experience, but higher ratings of the educational experience.

**WHY IT MATTERS:** Many museums use temporary and traveling exhibitions to drive visitation or offer new experiences to their visitors. These data suggest that temporary exhibitions do motivate visitation to some extent. How can museums leverage temporary exhibitions to draw new audiences and enhance the visitor experience—and what other factors might be involved?

### TEMPORARY EXHIBIT EXAMPLES

*Hot Wheels: Race to Win*

*The Science Behind Pixar*

*POPnology*

*Design Zone*

*Guitar: The Instrument That Rocked the World*

*Thomas and Friends: Explore the Rails*

**42 exhibits are included in this analysis**

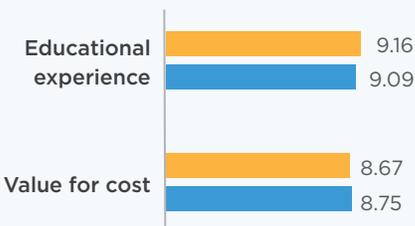
### MOTIVATION

Visit was motivated by a specific exhibit, program, or show  
n=4,505 / n=3,452



### EXPERIENCE RATINGS

Average rating, scale from 0 to 10 where 10 is highest.  
n varies



### MEDIAN STAY TIME

n=4,332 / n=3,159



### OVERALL EXPERIENCE RATING

n=4,473 / n=3,385

#### TEMP. EXHIBIT VISITORS



#### TEMP. EXHIBIT NON-VISITORS



## CHILD-FOCUSED MUSEUMS (6 MUSEUMS) VS. BROAD AUDIENCE MUSEUMS (15 MUSEUMS)

Some COVES institutions serve almost exclusively groups with children, while others serve broader audiences, including higher proportions of adult-only groups (in some cases, more than 35%). We categorized institutions as child-focused if 90% or more of groups visit with children. Aggregate data show that child-focused museums tend to draw more locals, more members, and more frequent visitors than non-child-focused museums. Visitors to child-focused museums also give higher ratings—overall and for specific aspects of the museum experience.

**WHY IT MATTERS:** Within the museum field, even among similar types of museums, there is great diversity among institutions’ core audiences. In addition, museums are often making decisions about whether and how to broaden their audience or deepen engagement with existing audiences. Why might child-focused museums see these higher ratings? What are the benefits and challenges of serving a broad versus narrow audience?

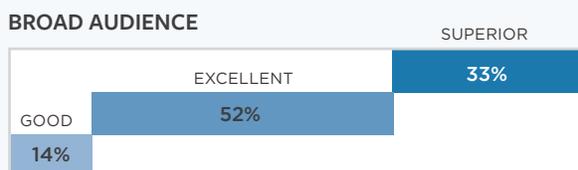
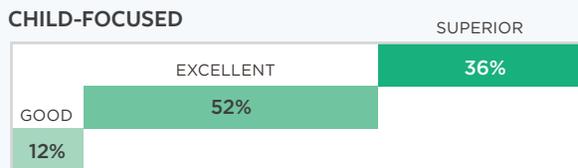
### LOCALS-ONLY n=3,257 / n=10,797



### VISITED IN LAST 3 MONTHS n=3,349 / n=11,291



### OVERALL EXPERIENCE RATING n=3,369 / n=11,452



### EXPERIENCE RATINGS

Average rating, scale from 0 to 10 where 10 is highest.  
n varies



90

80

70

60

50

40

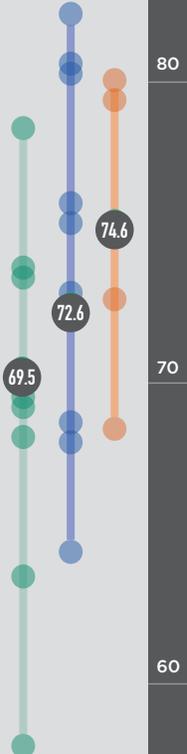
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## LARGE, MEDIUM, AND SMALL INSTITUTIONS

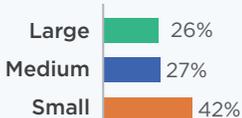
The 2018–19 COVES cohort shifted in terms of museum size, with more large and medium museums and fewer small museums. Last year, the report highlighted a trend with higher experience ratings for smaller museums. Even with the change in the COVES cohort, this trend continues this year, with small and medium museums seeing higher NPS, OER, and individual experience ratings than large museums. Smaller museums also tend to have more members and frequent visitors.

**WHY IT MATTERS:** COVES data consistently show small museums drawing more frequent visitors and member visitors, as well as receiving high NPS, OER, and experience rating scores. What other contextual factors, such as the museum’s age or location, might contribute to this? Are there ways that large museums can emulate their small museum peers, or are these differences inherent to the different experiences of visiting a larger or smaller museum?



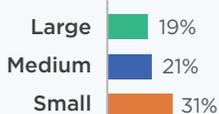
### MEMBERS

n=5,955 / n=4,968 / n=1,138



### VISITED IN LAST 3 MONTHS

n=6,690 / n=4,972 / n=2,978



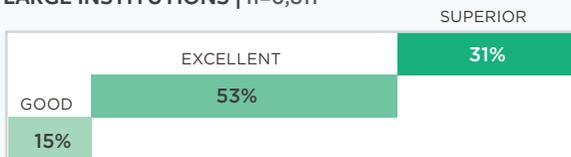
### EXPERIENCE RATINGS

Average rating, scale from 0 to 10 where 10 is highest.  
n varies

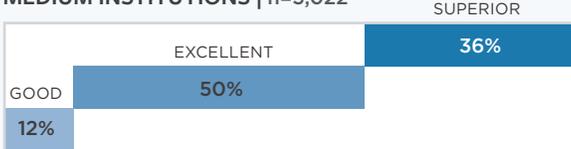


### OVERALL EXPERIENCE RATING

#### LARGE INSTITUTIONS | n=6,811



#### MEDIUM INSTITUTIONS | n=5,022



#### SMALL INSTITUTIONS | n=2,988



## FY18 VS. FY19

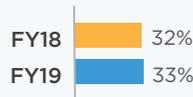
Now in our second year of reporting, COVES has the opportunity to analyze change over time with the aggregate data. To account for the changing cohort, we include only museums who have participated in both FY18 and FY19. Across these museums, much of the data remain consistent, which is itself noteworthy. There were small rises in the percent of adult-only groups, members, and LGBT+ visitors. However, using the example of Net Promoter Scores, the aggregate score barely changed from FY18 to FY19, while individual institutions saw much more variation.

**WHY IT MATTERS:** Across years, the COVES aggregate data have remained mostly consistent. However, as the Net Promoter Scores highlight, underneath those consistent data points could be a great deal of individual variation. If your institution is in COVES, have your data remained consistent year to year, or have they shifted? What insights can aggregate data give us as opposed to individual data points, and vice versa?

+1%

### OER—SUPERIOR RATINGS

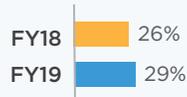
n=5,551 / n=10,528



+3%

### ADULT-ONLY GROUPS

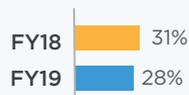
n=8,584 / n=10,064



-3%

### MEMBERS

n=8,029 / n=9,517



+2%

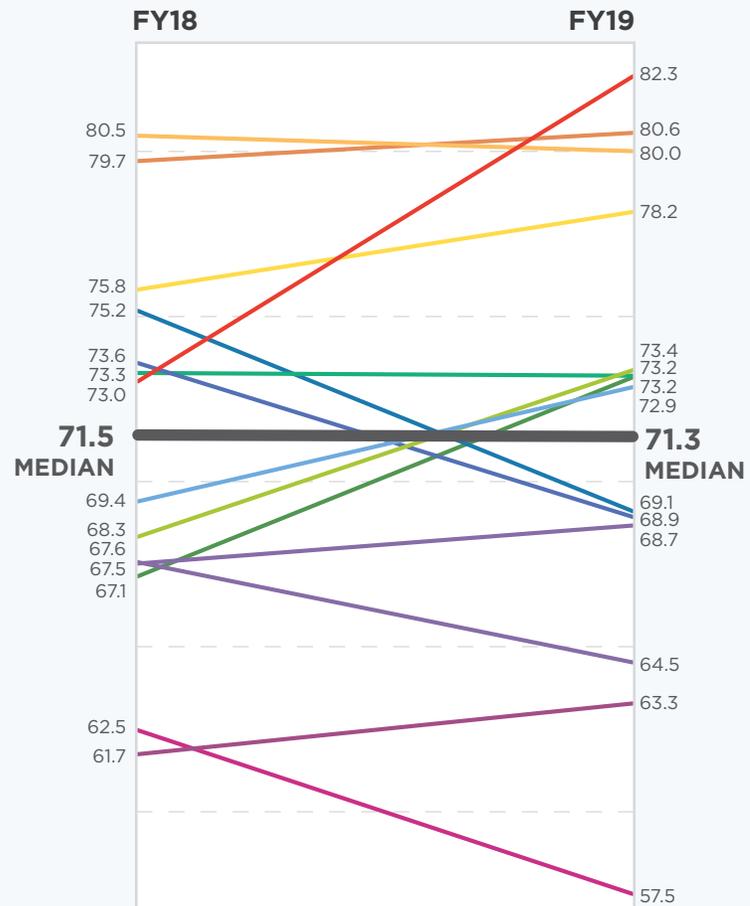
### LGBT+ VISITORS

n=8,609 / n=10,346



### INDIVIDUAL AND MEDIAN NPS

Each line represents an individual institution  
n varies



# GET INVOLVED IN COVES

Do you want to see data from your institution represented in COVES? We are always looking for new participants. As more institutions join, our field-wide dataset becomes more representative. As of October 2019, we will have 29 museums participating in COVES.

If you are interested in joining our collaboration or just want to learn more, please contact us at [info@understandingvisitors.org](mailto:info@understandingvisitors.org), or visit our website at [www.understandingvisitors.org](http://www.understandingvisitors.org). Currently, we're inviting science centers/museums, natural history museums, and children's museums to join, and we also hope to expand to art museums in FY20. We encourage all types of museums to contact us if interested!

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## MUSEUMS PARTICIPATING IN COVES

AS OF OCTOBER 2019

**Bell Museum**

**Bradbury Science Museum**

**Center of Science and Industry (COSI)**

**Children's Discovery Museum of San Jose**

**Connecticut Science Center**

**Discovery Center Museum**

**Discovery Place Science**

**Discovery World**

**The DoSeum**

**EcoTarium**

**Exploratorium**

**The Franklin Institute**

**Great Lakes Science Center**

**Imagination Station**

**Lawrence Hall of Science**

**Mayborn Museum**

**Museum of Discovery and Science**

**Museum of Science, Boston**

**Natural History Museum of Los Angeles County**

**Natural History Museum of Utah**

**New York Hall of Science**

**Oregon Museum of Science and Industry**

**Orlando Science Center**

**Roseville Utility Exploration Center**

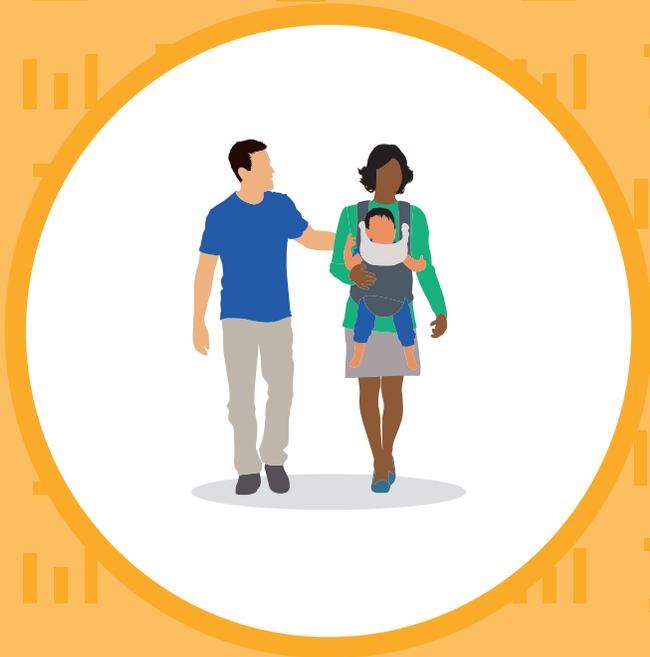
**Saint Louis Science Center**

**Science Center of Iowa**

**Science Museum of Minnesota**

**Science World British Columbia**

**Terry Lee Wells Nevada Discovery Museum**



COVES

[understandingvisitors.org](http://understandingvisitors.org)